

IN THE CLAIMS:

Please substitute amended claims 1-4 and add new claim 5, as follows:

1. (Amended) An epitaxial growth furnace comprising:
- a sealed chamber; and
 - a pair of wafer holders for holding a pair of semiconductor wafers within said chamber;
- 5 wherein formation of an epitaxial layer on a surface of each of said wafers is effected by supplying under a high temperature condition a source gas to a surface area of each of said wafers;
- 10 wherein said wafer holders are adapted to arrange said pair of wafers in such a manner that the wafers are disposed in mutually opposing positions with each said surface area adjacent to and parallel with each other so that a reaction chamber is
- 15 formed between said wafers;
- wherein said surface areas are subject to epitaxial growth within said reaction chamber; and
- 20 wherein each of said wafer holders comprises:
- an opening for exposing one of said surface areas of the wafers to said reaction chamber;
 - an opening flange adapted for engagement with a chamfered tapered face of a whole peripheral edge of one of said wafers on a side of said surface area thereof; and

a plurality of jaws for detachably engaging with an outer periphery of one of the wafers on a back surface side of said surface area thereof.

2. (Amended) An epitaxial growth furnace according to claim 1, wherein the opening flange of each of said wafer holders is adapted to contact only with the chamfered tapered face of the whole peripheral edge of one of said wafers on the side of said surface area thereof which is subject to epitaxial growth.

3. (Amended) An epitaxial growth furnace according to claim 1, further comprising a plurality of springs for respectively thrusting said jaws toward a center of said opening, and detachable actuating means for locking each of said jaws in a released position against respective thrust forces from said springs.

4. (Amended) An epitaxial growth furnace according to claim 2, wherein each of said jaws includes an inclined face corresponding to the chamfered tapered face of the peripheral edge of one of the wafers on said back surface side thereof.

5. (New) An epitaxial growth furnace according to claim 1,
wherein said pair of wafer holders are adapted for vertical
arrangement of said pair of semiconductor wafers so that the
wafers are placed upright with each wafer surface vertically
arranged in the reaction chamber.